

# METHOD AND APPARATUS FOR GENERATING HIGH FREQUENCY SIGNALS BY A PLURALITY OF LOW FREQUENCY SIGNALS WITH MULTIPLE PHASES

## Abstract

Method and related apparatus for realizing frequency-multiplication by generating a high frequency signal according to a plurality of low frequency signals. The method includes: according to a plurality output signals generated by a phase-locked loop (PLL) or a delay-locked loop (DLL), generating a plurality of reference signals with a same frequency and different phases; when a number of the reference signals with signal level high is greater than a number of the reference signals with signal level low, making a signal level of the output signal remains a first level; otherwise, making the signal level of the output signal remains a second level substantially different from the first level. Thus the frequency of the output signals is a multiplication of the frequency of the input signals.